

PATENT ABSTRACTS OF JAPAN

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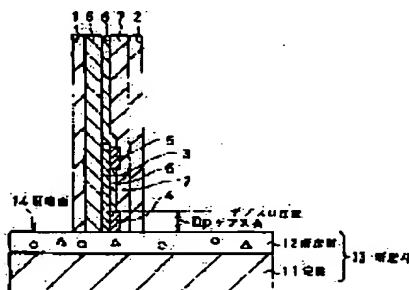
(54) MANUFACTURING METHOD OF MAGNETO-RESISTANCE EFFECT TYPE HEAD

(57)Abstract:

PROBLEM TO BE SOLVED: To conduct a highly precise depth machining of a magneto-resistance effect type head and to conduct a high density recording by applying a magnetic field to a magneto-resistance effect element from the external and conducting a grinding to control the depth length of a magnetic gap while detecting the resistance value of the element or the rate of the change of the resistance.

SOLUTION: A head is placed on a grinding surface 14 of a grinder 13 so that the side of the head, which becomes the sliding surface against a magnetic recording medium, is set to the down direction. If a magnetic field is applied to a magneto-resistance effect type MR element 3, a resistance value R of the element 3 is reduced in the region, in which a depth length Dp is less than a certain range and an amount of the change ΔR becomes large as it approaches to the position where the depth length is close to 0.

Thus, from the relationship between the value R and the length Dp, the grinding is conducted so that the value R becomes the value of a prescribed depth length Dp and the length Dp is precisely controlled. Thus, no adverse effect is generated by the mask deviation of a pattern and the dispersion of etching and a highly precise grinding in the order of ± 0.1 to $0.2 \mu\text{m}$ is conducted.



LEGAL STATUS

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